

REMARKS

New Claims 119 and 120 are directed to allowable subject matter as kindly suggested by the Examiner. For Claim 119, see suggestion ii at page 3 of the December 14, 2004, Office Action. For Claim 120, see the paragraph bridging pages 19 and 20 of the Office Action dated June 20, 2003. No new matter has been entered.

Applicants respectfully request reconsideration of the outstanding rejection over Guenzer, Kaushik and JP '070, made originally against claims then pending in the June 20, 2003, Office Action. The claims have changed substantially from that date.

Present Claim 115 reads:

A semiconductor structure comprising:

- a) a monocrystalline Group IV substrate;
- b) an amorphous oxide material in contact with the monocrystalline substrate;
- c) a monocrystalline metal oxide layer selected from the group consisting of alkaline earth metal titanates, alkaline earth metal zirconates, alkaline earth metal hafnates, alkaline earth metal tantalates, alkaline earth metal ruthenates, alkaline earth metal niobates, alkaline earth metal vanadates, alkaline earth metal tin-based perovskites, lanthanum aluminate, lanthanum scandium oxide, gadolinium oxide and mixtures thereof contacting the amorphous oxide material;
- d) a metal or metal oxide capping layer in contact with said monocrystalline metal oxide layer;
- e) a compound semiconductor template layer in contact with said capping layer; and
- f) a monocrystalline compound semiconductor layer in contact with said template layer.

In this regard, the references Guenzer, Kaushik and JP '070 do not suggest at least the following structure:

- d) a metal or metal oxide capping layer in contact with said monocrystalline metal oxide layer;
- e) a compound semiconductor template layer in contact with said capping layer; and
- f) a monocrystalline compound semiconductor layer in contact with said template layer.

While applicant disagrees that any portion of, e.g., Claim 115 is disclosed or suggested by this combination of references, certainly the three applied references fail to disclose elements d), e), and f) as noted above. Compare Claim 1 with Claim 115.

With regard to Claim 118, note the limitations:

a first semiconductor component, at least a portion of which is formed in said monocrystalline silicon substrate; and

a second semiconductor component, at least a portion of which is formed in said compound semiconductor layer, said second semiconductor component being electrically coupled to said first semiconductor component,

which similarly are absent from the collection of Guenzer, Kaushik and JP '070.

Finally, and with respect to the double patenting rejection, applicants traverse this rejection, but are currently formulating the possibility of filing Terminal Disclaimers without prejudice.

Respectfully submitted,

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